

Technical Report W259AO Minor Modification

This technical report is submitted for a minor modification to W259AO, FCC file no. BLFT-20130702ABZ. A move to channel 225 and new tower site within the allowed 250 mile radius is submitted. The translator is to serve as a fill-in facility to rebroadcast WTKM(AM) 1540 kHz at Hartford, WI, FCC facility I.D. no. 34302.

W259AO Modification Analysis:

An overlap study in exhibit E-1 shows the W259AO modification is within the second-adjacent WMBZ(FM) 223B and WLDB(FM) 227B protected contours. A tabulation of the +40 dBu F(50-10) contours in exhibits E-2 and E-3 using the vertical elevation pattern of the PSI FLV four bay, 0.85 wavelength-spaced antenna (exhibit E-4) show the +40 dBu F(50-10) contours will not produce any interfering signal to population, major roads or buildings (exhibit E-5). The 60 dBu F(50-50) contour is contained within the primary WTKM(AM) 2.0 mV/m daytime contour (exhibit E-6) and is located within 250 miles of the current facility (exhibit E-7).

Antenna System:

The W259AO modification will be relocated to the existing tower, ASR 1034706, at coordinates:

43 16 48N 88 23 02W NAD 27.

A PSI FMLV-4A four bay, 0.85 wavelength-spaced, nondirectional antenna will be mounted at a COR AGL of 85 meters, 390 meters AMSL and operate at 0.250 kW ERP.

RF Exposure Calculation:

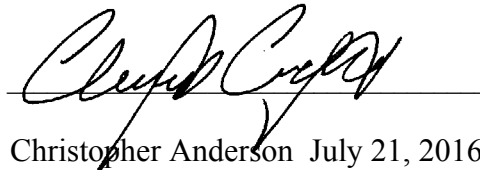
The RF contribution was calculated using the formula from the OET Bulletin 65:

$$S \text{ (RF in microwatts/cm}^2\text{)} = \frac{33.4 \times F^2 \times (H \text{ ERP} + V \text{ ERP in watts})}{R^2 \text{ (height of radiation center in meters -2m)}}$$

Using a worst case vertical (F) factor of 1.0, the RF is calculated to be 2.42 $\mu\text{W}/\text{cm}^2$ to the ground, which is below 5% of the 200 $\mu\text{W}/\text{cm}^2$ maximum permissible for general public exposure allowing exclusion from consideration.

Conclusion:

It is concluded that the W259AO modification complies with all Commission rules and policies.



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E-1 W259AO Mod. Overlap Study

REFERENCE 43 16 48.0 N. 88 23 02.0 W.		CH# 225D - 92.9 MHz, Pwr= 0.25 kW, HAAT= 83.0 M, COR= 390 M Average Protected F(50-50)= 11.77 km Omni-directional								DISPLAY DATES DATA 07-21-16 SEARCH 07-21-16	
CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
223B West Bend	WMBZ	LIC _CN WI		22.0 202.1	17.92 BLH19950601KA	43 25 46.0 88 18 02.0	17.500 164	4.7 474	56.9 Magnum Communications, Inc	1.7	-40.6*
227B Milwaukee	WLDB	LIC NCX WI		117.6 297.9	43.93 BLH20050923AAH	43 05 46.0 87 54 15.0	16.000 270	5.4 468	63.7 Milwaukee Radio Alliance,	27.9	-21.3* (1)
225A Chilton	WKZY	LIC NCX WI		6.6 186.7	88.75 BLH20121015AAA	44 04 22.6 88 15 24.3	5.800 102	79.5 362	22.4 Woodward Communications, I	-1.4	26.2
225L1 Milwaukee	WBVW-LP	CP ____ WI		131.1 311.5	51.33 BMPL20150928AFD	42 58 31.0 87 54 31.0	0.090 32		22.1 Soul's Harbor Baptist Churc		8.8
225C1 Dubuque	KATF	LIC NC_ IA		246.1 64.6	200.04 BLH20030130ACU	42 31 44.0 90 36 58.0	92.000 309	167.5 556	69.5 Radio Dubuque, Inc.	18.9	83.9
226A De Forest	WJQM	LIC ZEX WI		259.0 78.5	68.67 BMLH20070802ADL	43 09 34.0 89 12 55.0	6.000 98	33.4 378	20.9 Mid-west Management, Inc.	23.0	25.2
279B Wauwatosa	WXSS	LIC _C_ WI		117.5 297.9	43.93 BMLH20010731ABY	43 05 48.0 87 54 18.0	19.500 257	39.9 466	11.7 Entercom License, LIc	14.5R	29.4M
Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent. All separation margins (if shown) include rounding. Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X) "*"affixed to 'IN' or 'OUT' values = site inside restricted contour. Reference station has protected zone issue: AM tower											

1) The W259AO modification to channel 225 is within the WMBZ(FM) 223B and WLDB(FM) 227B second-adjacent protected contours. A tabulation of the +40 dBu F(50-10) contours using the vertical elevation pattern of the antenna in exhibits E-2 and E-3 show the modification will not produce any interfering signal.

E-2 W259AO Mod. +40 dBu Tabulation Within WMBZ(FM) 223B Protected Contour

W259AO Hartford, WI

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.25

Translator or LPFM Antenna Height AG = 85 Meters

W259AO Antenna Model = PSI-FMLV-4A-0.85

Protected Station's Contour = 77.37737 dBu

Translator's or LPFM's full Interference contour 117.37737

Review Azimuth = 0 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW

Distance between stations = 17.9 km

Protected Station= WMBZ, 17.5 kW, 474 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.000	1.0	0.2500	150.0035	150.0035	085.000
01.00	0.994	1.0	0.2470	149.1035	149.0808	082.398
02.00	0.978	1.0	0.2391	146.7035	146.6141	079.880
03.00	0.950	1.0	0.2256	142.5034	142.3081	077.542
04.00	0.913	1.0	0.2084	136.9532	136.6196	075.447
05.00	0.866	1.0	0.1875	129.9031	129.4087	073.678
06.00	0.811	1.0	0.1644	121.6529	120.9864	072.284
07.00	0.748	1.0	0.1399	112.2027	111.3663	071.326
08.00	0.679	1.0	0.1153	101.8524	100.8612	070.825
09.00	0.605	1.0	0.0915	090.7521	089.6348	070.803
10.00	0.528	1.0	0.0697	079.2019	077.9986	071.247
11.00	0.449	1.0	0.0504	067.3516	066.1142	072.149
12.00	0.369	1.0	0.0340	055.3513	054.1417	073.492
13.00	0.290	1.0	0.0210	043.5010	042.3861	075.214
14.00	0.213	1.0	0.0113	031.9508	031.0017	077.270
15.00	0.139	1.0	0.0048	020.8505	020.1400	079.603
16.00	0.070	1.0	0.0012	010.5002	010.0935	082.106
17.00	0.006	1.0	0.0000	000.9000	000.8607	084.737
18.00	0.051	1.0	0.0007	007.6502	007.2758	082.636
19.00	0.102	1.0	0.0026	015.3004	014.4668	080.019
20.00	0.145	1.0	0.0053	021.7505	020.4388	077.561
21.00	0.181	1.0	0.0082	027.1506	025.3473	075.270
22.00	0.209	1.0	0.0109	031.3507	029.0679	073.256
23.00	0.228	1.0	0.0130	034.2008	031.4820	071.637
24.00	0.241	1.0	0.0145	036.1509	033.0254	070.296
25.00	0.246	1.0	0.0151	036.9009	033.4435	069.405
26.00	0.244	1.0	0.0149	036.6009	032.8966	068.955
27.00	0.236	1.0	0.0139	035.4008	031.5424	068.928
28.00	0.222	1.0	0.0123	033.3008	029.4028	069.366
29.00	0.203	1.0	0.0103	030.4507	026.6328	070.237
30.00	0.180	1.0	0.0081	027.0006	023.3832	071.500
31.00	0.154	1.0	0.0059	023.1005	019.8010	073.102
32.00	0.125	1.0	0.0039	018.7504	015.9013	075.064
33.00	0.095	1.0	0.0023	014.2503	011.9513	077.239
34.00	0.063	1.0	0.0010	009.4502	007.8346	079.716
35.00	0.032	1.0	0.0003	004.8001	003.9320	082.247
36.00	0.000	1.0	0.0000	000.0150	000.0121	084.991
37.00	0.029	1.0	0.0002	004.3501	003.4741	082.382
38.00	0.057	1.0	0.0008	008.5502	006.7377	079.736
39.00	0.083	1.0	0.0017	012.4503	009.6757	077.165
40.00	0.107	1.0	0.0029	016.0504	012.2953	074.683
41.00	0.127	1.0	0.0040	019.0505	014.3776	072.502

E-2 +40 dBu Tabulation Within WMBZ(FM) 223B

42.00	0.145	1.0	0.0053	021.7505	016.1638	070.446
43.00	0.159	1.0	0.0063	023.8506	017.4432	068.734
44.00	0.170	1.0	0.0072	025.5006	018.3436	067.286
45.00	0.178	1.0	0.0079	026.7006	018.8802	066.120
46.00	0.182	1.0	0.0083	027.3006	018.9646	065.362
47.00	0.183	1.0	0.0084	027.4506	018.7213	064.924
48.00	0.182	1.0	0.0083	027.3006	018.2677	064.712(1)
49.00	0.178	1.0	0.0079	026.7006	017.5172	064.849
50.00	0.171	1.0	0.0073	025.6506	016.4879	065.350
51.00	0.162	1.0	0.0066	024.3006	015.2928	066.115
52.00	0.151	1.0	0.0057	022.6505	013.9451	067.151
53.00	0.138	1.0	0.0048	020.7005	012.4579	068.468
54.00	0.125	1.0	0.0039	018.7504	011.0212	069.831
55.00	0.110	1.0	0.0030	016.5004	009.4642	071.484
56.00	0.094	1.0	0.0022	014.1003	007.8848	073.310
57.00	0.078	1.0	0.0015	011.7003	006.3724	075.187
58.00	0.062	1.0	0.0010	009.3002	004.9284	077.113
59.00	0.045	1.0	0.0005	006.7502	003.4766	079.214
60.00	0.029	1.0	0.0002	004.3501	002.1751	081.233
61.00	0.014	1.0	0.0000	002.1000	001.0181	083.163
62.00	0.001	1.0	0.0000	000.1500	000.0704	084.868
63.00	0.015	1.0	0.0001	002.2501	001.0215	082.995
64.00	0.028	1.0	0.0002	004.2001	001.8412	081.225
65.00	0.040	1.0	0.0004	006.0001	002.5358	079.562
66.00	0.052	1.0	0.0007	007.8002	003.1726	077.874
67.00	0.061	1.0	0.0009	009.1502	003.5753	076.577
68.00	0.070	1.0	0.0012	010.5002	003.9335	075.264
69.00	0.077	1.0	0.0015	011.5503	004.1392	074.217
70.00	0.083	1.0	0.0017	012.4503	004.2583	073.301
71.00	0.088	1.0	0.0019	013.2003	004.2976	072.519
72.00	0.091	1.0	0.0021	013.6503	004.2182	072.018
73.00	0.094	1.0	0.0022	014.1003	004.1225	071.516
74.00	0.095	1.0	0.0023	014.2503	003.9279	071.302
75.00	0.095	1.0	0.0023	014.2503	003.6883	071.235
76.00	0.093	1.0	0.0022	013.9503	003.3749	071.464
77.00	0.091	1.0	0.0021	013.6503	003.0707	071.700
78.00	0.088	1.0	0.0019	013.2003	002.7445	072.088
79.00	0.084	1.0	0.0018	012.6003	002.4043	072.631
80.00	0.079	1.0	0.0016	011.8503	002.0578	073.330
81.00	0.073	1.0	0.0013	010.9503	001.7130	074.185
82.00	0.067	1.0	0.0011	010.0502	001.3987	075.048
83.00	0.060	1.0	0.0009	009.0002	001.0968	076.067
84.00	0.052	1.0	0.0007	007.8002	000.8153	077.243
85.00	0.044	1.0	0.0005	006.6002	000.5752	078.425
86.00	0.036	1.0	0.0003	005.4001	000.3767	079.613
87.00	0.027	1.0	0.0002	004.0501	000.2120	080.955
88.00	0.018	1.0	0.0001	002.7001	000.0942	082.302
89.00	0.009	1.0	0.0000	001.3500	000.0236	083.650
90.00	0.001	1.0	0.0000	000.1500	000.0000	084.850

(1) The +40 117.4 dBu F(50-10) contour lowest point above the site elevation = 64.7 meters.

E-3 W259AO Mod. +40 dBu Tabulation Within WLDB(FM) 227B Protected Contour

W259AO Hartford, WI

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.25

Translator or LPFM Antenna Height AG = 85 Meters

W259AO Antenna Model = PSI-FMLV-4A-0.85

Protected Station's Contour = 63.33265 dBu

Translator's or LPFM's full Interference contour 103.33265

Review Azimuth = 0 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW

Distance between stations = 43.9 km

Protected Station= WLDB, 16 kW, 468 M Meters COR AMSL

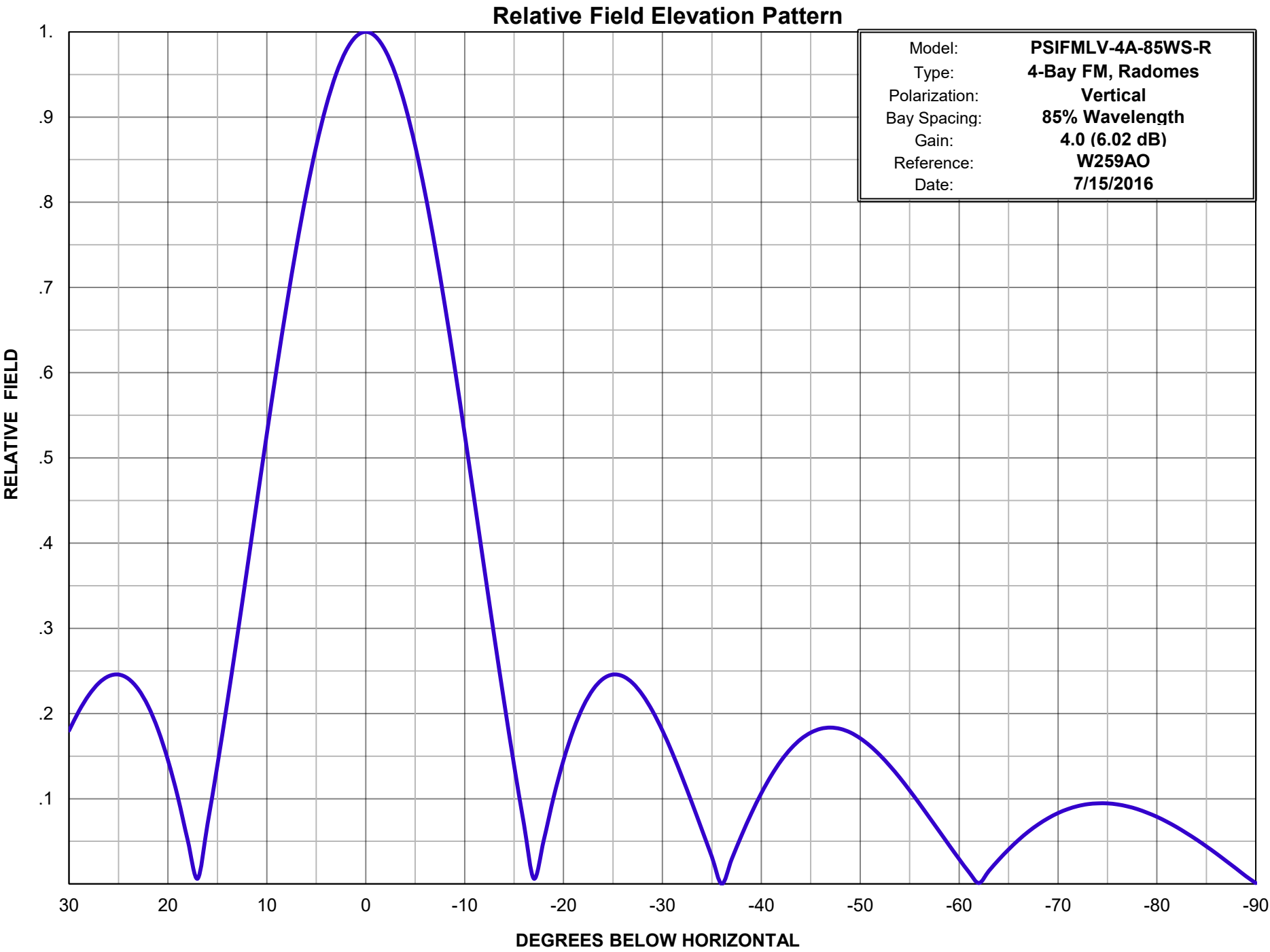
Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.000	1.0	0.2500	755.6793	755.6793	085.000
01.00	0.994	1.0	0.2470	751.1452	751.0308	071.891
02.00	0.978	1.0	0.2391	739.0543	738.6041	059.207
03.00	0.950	1.0	0.2256	717.8953	716.9114	047.428
04.00	0.913	1.0	0.2084	689.9352	688.2545	036.873
05.00	0.866	1.0	0.1875	654.4182	651.9280	027.964
06.00	0.811	1.0	0.1644	612.8559	609.4986	020.939
07.00	0.748	1.0	0.1399	565.2481	561.0348	016.114
08.00	0.679	1.0	0.1153	513.1062	508.1127	013.589
09.00	0.605	1.0	0.0915	457.1860	451.5573	013.480
10.00	0.528	1.0	0.0697	398.9986	392.9370	015.715
11.00	0.449	1.0	0.0504	339.3000	333.0661	020.259
12.00	0.369	1.0	0.0340	278.8456	272.7522	027.025
13.00	0.290	1.0	0.0210	219.1470	213.5303	035.703
14.00	0.213	1.0	0.0113	160.9597	156.1785	046.060
15.00	0.139	1.0	0.0048	105.0394	101.4603	057.814
16.00	0.070	1.0	0.0012	052.8975	050.8484	070.419
17.00	0.006	1.0	0.0000	004.5341	004.3360	083.674
18.00	0.051	1.0	0.0007	038.5396	036.6534	073.091
19.00	0.102	1.0	0.0026	077.0793	072.8799	059.905
20.00	0.145	1.0	0.0053	109.5735	102.9654	047.524
21.00	0.181	1.0	0.0082	136.7779	127.6932	035.983
22.00	0.209	1.0	0.0109	157.9370	146.4366	025.836
23.00	0.228	1.0	0.0130	172.2949	158.5983	017.679
24.00	0.241	1.0	0.0145	182.1187	166.3737	010.926
25.00	0.246	1.0	0.0151	185.8971	168.4800	006.436
26.00	0.244	1.0	0.0149	184.3857	165.7248	004.171
27.00	0.236	1.0	0.0139	178.3403	158.9024	004.035
28.00	0.222	1.0	0.0123	167.7608	148.1240	006.241
29.00	0.203	1.0	0.0103	153.4029	134.1692	010.629
30.00	0.180	1.0	0.0081	136.0223	117.7987	016.989
31.00	0.154	1.0	0.0059	116.3746	099.7525	025.063(1)
32.00	0.125	1.0	0.0039	094.4599	080.1065	034.944
33.00	0.095	1.0	0.0023	071.7895	060.2078	045.901
34.00	0.063	1.0	0.0010	047.6078	039.4687	058.378
35.00	0.032	1.0	0.0003	024.1817	019.8085	071.130
36.00	0.000	1.0	0.0000	000.0756	000.0611	084.956
37.00	0.029	1.0	0.0002	021.9147	017.5019	071.811
38.00	0.057	1.0	0.0008	043.0737	033.9426	058.481
39.00	0.083	1.0	0.0017	062.7214	048.7437	045.528
40.00	0.107	1.0	0.0029	080.8577	061.9406	033.026
41.00	0.127	1.0	0.0040	095.9713	072.4304	022.037

E-3 +40 dBu Tabulation Within WLDB(FM) 227B

42.00	0.145	1.0	0.0053	109.5735	081.4290	011.681
43.00	0.159	1.0	0.0063	120.1530	087.8743	003.056
44.00	0.170	1.0	0.0072	128.4655	092.4103	-004.240
45.00	0.178	1.0	0.0079	134.5109	095.1136	-010.114
46.00	0.182	1.0	0.0083	137.5336	095.5389	-013.933
47.00	0.183	1.0	0.0084	138.2893	094.3131	-016.138
48.00	0.182	1.0	0.0083	137.5336	092.0280	-017.207
49.00	0.178	1.0	0.0079	134.5109	088.2471	-016.517
50.00	0.171	1.0	0.0073	129.2212	083.0618	-013.989
51.00	0.162	1.0	0.0066	122.4200	077.0414	-010.138
52.00	0.151	1.0	0.0057	114.1076	070.2516	-004.918
53.00	0.138	1.0	0.0048	104.2837	062.7595	001.715
54.00	0.125	1.0	0.0039	094.4599	055.5221	008.580
55.00	0.110	1.0	0.0030	083.1247	047.6784	016.908
56.00	0.094	1.0	0.0022	071.0338	039.7216	026.110
57.00	0.078	1.0	0.0015	058.9430	032.1026	035.566
58.00	0.062	1.0	0.0010	046.8521	024.8278	045.267
59.00	0.045	1.0	0.0005	034.0056	017.5142	055.852
60.00	0.029	1.0	0.0002	021.9147	010.9573	066.021
61.00	0.014	1.0	0.0000	010.5795	005.1290	075.747
62.00	0.001	1.0	0.0000	000.7557	000.3548	084.333
63.00	0.015	1.0	0.0001	011.3352	005.1461	074.900
64.00	0.028	1.0	0.0002	021.1590	009.2755	065.982
65.00	0.040	1.0	0.0004	030.2272	012.7746	057.605
66.00	0.052	1.0	0.0007	039.2953	015.9828	049.102
67.00	0.061	1.0	0.0009	046.0964	018.0113	042.568
68.00	0.070	1.0	0.0012	052.8975	019.8158	035.954
69.00	0.077	1.0	0.0015	058.1873	020.8525	030.677
70.00	0.083	1.0	0.0017	062.7214	021.4520	026.061
71.00	0.088	1.0	0.0019	066.4998	021.6502	022.123
72.00	0.091	1.0	0.0021	068.7668	021.2501	019.599
73.00	0.094	1.0	0.0022	071.0338	020.7683	017.070
74.00	0.095	1.0	0.0023	071.7895	019.7879	015.991
75.00	0.095	1.0	0.0023	071.7895	018.5805	015.657
76.00	0.093	1.0	0.0022	070.2782	017.0018	016.809
77.00	0.091	1.0	0.0021	068.7668	015.4692	017.996
78.00	0.088	1.0	0.0019	066.4998	013.8261	019.953
79.00	0.084	1.0	0.0018	063.4771	012.1120	022.689
80.00	0.079	1.0	0.0016	059.6987	010.3666	026.208
81.00	0.073	1.0	0.0013	055.1646	008.6296	030.515
82.00	0.067	1.0	0.0011	050.6305	007.0464	034.862
83.00	0.060	1.0	0.0009	045.3408	005.5256	039.997
84.00	0.052	1.0	0.0007	039.2953	004.1075	045.920
85.00	0.044	1.0	0.0005	033.2499	002.8979	051.877
86.00	0.036	1.0	0.0003	027.2045	001.8977	057.862
87.00	0.027	1.0	0.0002	020.4033	001.0678	064.625
88.00	0.018	1.0	0.0001	013.6022	000.4747	071.406
89.00	0.009	1.0	0.0000	006.8011	000.1187	078.200
90.00	0.001	1.0	0.0000	000.7557	000.0000	084.244

(1) From 100 meters to the base of the tower, the +40 dBu 103.3 F(50-10) contour which reaches the ground does not affect any buildings, major roads or population, as shown in the aerial photo in exhibit E-5. There are no buildings within 100 meters and no buildings within the interference contour higher than two stories (6 meters).

E-4 W259AO Mod. Antenna Elevation Pattern





Propagation Systems Inc.
Elevation Pattern Tabulation
Antenna: PSIFMLV-4A-85WS-R

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.171	-15.345	-10.0	0.528	-5.544
-89.0	0.009	-40.828	-49.0	0.178	-15.005	-9.0	0.605	-4.358
-88.0	0.018	-34.807	-48.0	0.182	-14.800	-8.0	0.679	-3.361
-87.0	0.027	-31.382	-47.0	0.183	-14.728	-7.0	0.748	-2.522
-86.0	0.036	-28.933	-46.0	0.182	-14.793	-6.0	0.811	-1.822
-85.0	0.044	-27.113	-45.0	0.178	-15.012	-5.0	0.866	-1.249
-84.0	0.052	-25.660	-44.0	0.170	-15.391	-4.0	0.913	-0.792
-83.0	0.060	-24.503	-43.0	0.159	-15.975	-3.0	0.950	-0.441
-82.0	0.067	-23.522	-42.0	0.145	-16.791	-2.0	0.978	-0.196
-81.0	0.073	-22.730	-41.0	0.127	-17.916	-1.0	0.994	-0.049
-80.0	0.079	-22.071	-40.0	0.107	-19.452	0.0	1.000	0.000
-79.0	0.084	-21.552	-39.0	0.083	-21.615	1.0	0.994	-0.049
-78.0	0.088	-21.122	-38.0	0.057	-24.887	2.0	0.978	-0.196
-77.0	0.091	-20.813	-37.0	0.029	-30.770	3.0	0.950	-0.441
-76.0	0.093	-20.599	-36.0	0.000	#NUM!	4.0	0.913	-0.790
-75.0	0.095	-20.487	-35.0	0.032	-29.946	5.0	0.866	-1.248
-74.0	0.095	-20.487	-34.0	0.063	-23.967	6.0	0.811	-1.821
-73.0	0.094	-20.571	-33.0	0.095	-20.473	7.0	0.748	-2.520
-72.0	0.091	-20.785	-32.0	0.125	-18.062	8.0	0.679	-3.360
-71.0	0.088	-21.122	-31.0	0.154	-16.262	9.0	0.606	-4.356
-70.0	0.083	-21.599	-30.0	0.180	-14.895	10.0	0.528	-5.542
-69.0	0.077	-22.257	-29.0	0.203	-13.855	11.0	0.449	-6.953
-68.0	0.070	-23.117	-28.0	0.222	-13.086	12.0	0.369	-8.654
-67.0	0.061	-24.242	-27.0	0.236	-12.556	13.0	0.290	-10.748
-66.0	0.052	-25.761	-26.0	0.244	-12.260	14.0	0.213	-13.425
-65.0	0.040	-27.861	-25.0	0.246	-12.190	15.0	0.139	-17.115
-64.0	0.028	-30.954	-24.0	0.241	-12.368	16.0	0.070	-23.079
-63.0	0.015	-36.391	-23.0	0.228	-12.823	17.0	0.006	-44.135
-62.0	0.001	-59.489	-22.0	0.209	-13.612	18.0	0.051	-25.813
-61.0	0.014	-37.210	-21.0	0.181	-14.851	19.0	0.102	-19.831
-60.0	0.029	-30.680	-20.0	0.145	-16.755	20.0	0.145	-16.755
-59.0	0.045	-26.877	-19.0	0.102	-19.831	21.0	0.181	-14.851
-58.0	0.062	-24.199	-18.0	0.051	-25.787	22.0	0.209	-13.612
-57.0	0.078	-22.172	-17.0	0.006	-44.135	23.0	0.228	-12.823
-56.0	0.094	-20.529	-16.0	0.070	-23.098	24.0	0.241	-12.368
-55.0	0.110	-19.196	-15.0	0.139	-17.125	25.0	0.246	-12.190
-54.0	0.125	-18.083	-14.0	0.213	-13.431	26.0	0.244	-12.260
-53.0	0.138	-17.172	-13.0	0.290	-10.752	27.0	0.236	-12.556
-52.0	0.151	-16.417	-12.0	0.369	-8.657	28.0	0.222	-13.086
-51.0	0.162	-15.811	-11.0	0.449	-6.956	29.0	0.203	-13.855

E-5 W259AO Mod. +40 dBu Contour Within WLDB(FM) 227B Aerial Photo

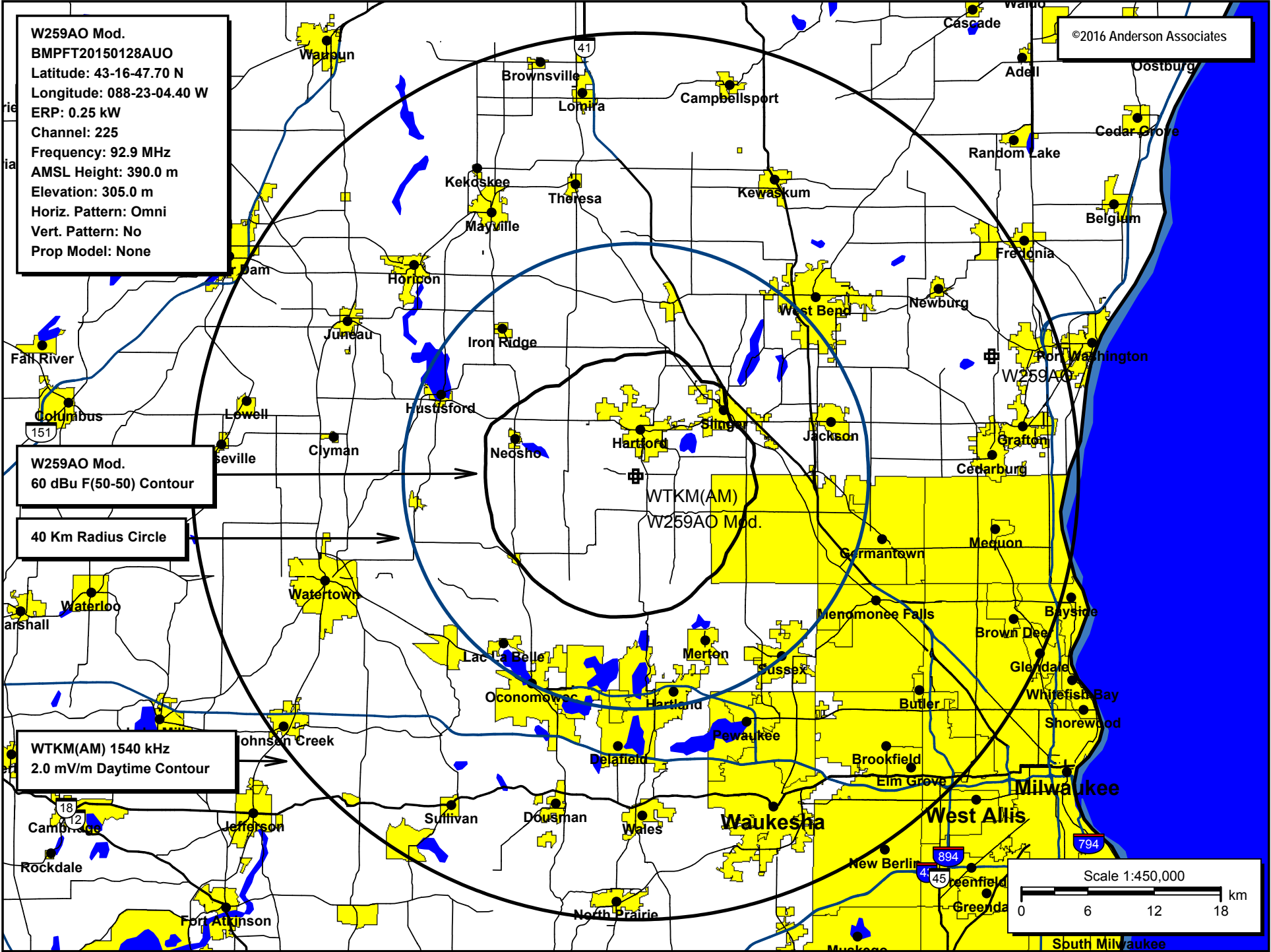


Google earth

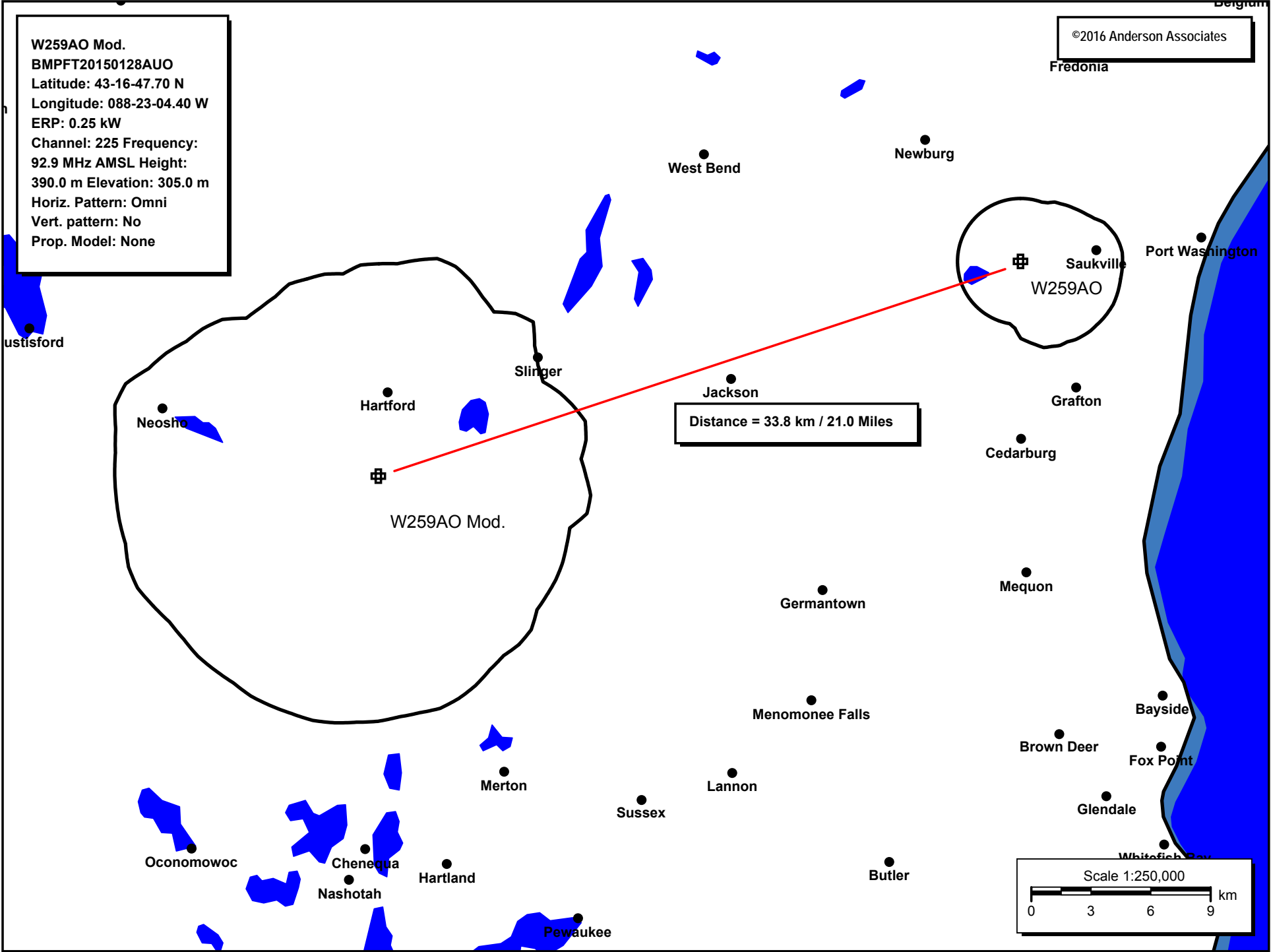
feet
meters



E-6 W259AO Mod. 60 dBu Contour Plot



E-7 W259AO Mod. 250 Mile Plot



ASR Registration 1034706

Registration Detail

Reg Number	1034706	Status	Constructed
File Number	A0829875	Constructed	10/01/1951
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	43-16-48.0 N 088-23-02.0 W	Address	6995 W WATERFORD RD .8 MI W OF ST HWY 83
City, State	ERIN , WI		
Zip	53027	County	WASHINGTON
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
304.8	94.8
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
399.6	94.0

Painting and Lighting Specifications

FCC Paragraphs 1, 3, 12, 21

FAA Notification

FAA Study	FAA Issue Date
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Owner & Contact Information

FRN	0020965224	Owner Entity	Limited Liability Company
		Type	

Owner

Tomsun Media LLC	P: (262)673-7800
Attention To: David Stout	F:
P.O. Box 270526	E: fmam@wi.rr.com
Hartford , WI 53027	

Contact

Stout , David	P: (262)673-7800
P.O. Box 270526	F:
Hartford , WI 53027	E: fmam@wi.rr.com

Last Action Status

Status	Constructed	Received	03/11/2013
Purpose	Admin Update	Entered	03/11/2013